# 5. 510(k) Summary

MAY 1 1 2012

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K120119

# Sunny Medical Device (Shenzhen) Co., Ltd.

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#### **SUMMARY**

K Reference #

K120119

Submitter's name:

Sunny Medical Device (Shenzhen) Co., Ltd.

Address:

Suite 401 Dongpingxin Creative Science

Park, Zhongxincheng Longcheng Street,

Longgang District, Shenzhen,

Guangdong Province, P.R. China 518172

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+86 755 2893-8097/+1 949 423-0168

Name of contact person:

Greg Holland

Regulatory Specialists, Inc.

3722 Ave. Sausalito Irvine, CA 92606 Phone: 949-262-0411 Fax: 949-552-2821

Date the summary was revised:

May 8, 2012

Name of the device:

Sunmed Guide Wires

Trade or proprietary name

Sunmed Guide Wires

Common or usual name

Guide wires

| Product Code | Classification Regulation | Classification Name |  |
|--------------|---------------------------|---------------------|--|
| DQX          | 870.1330                  | Catheter guide wire |  |

The legally marketed devices to which we are claiming equivalence [807.92(a)(3)]:

|   | 510(k)  | Trade or Proprietary or Model Name  | Manufacturer   |
|---|---------|-------------------------------------|----------------|
| 1 | K993000 | Bard Hydrophilic Coated Guide Wires | C.R. Bard Inc. |
| 2 | K082094 | PTFE (Teflon) Coated Guide Wires    | C.R. Bard Inc. |

## Description of the device:

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Sunmed Guidewires are used for the introduction and placement of diagnostic or interventional devices in the coronary and peripheral vasculature and may be used to reach and cross a target lesion.

The Sunmed Guide Wires are available in three versions with a variety of tips:

Stainless steel guide wire Hydrophilic coated guide wire PTFE (Teflon®) coated guide wires

The Seldinger technique is used with these guidewires.

The stainless steel guide wires are standard wires with various tip configurations. The guide wire construction consists of a safety wire, a core wire, and a wound spring for flexibility. The features that distinguish individual wires consist of the core type (fixed or moveable), a straight or "J" tip configuration, diameters and lengths.

The Hydrophilic coated guide wires are constructed from the stainless steel core wire, with varying core lengths and diameters for each design.

The PTFE (Teflon®) coated guide wires are also manufactured from stainless steel wire, with PTFE (Teflon®) coating, or Benzalkonium Heparin (BH) coating applied over the PTFE (Teflon®) coating.

These guide wires are radiodetectable and fluoroscopy may be used to confirm position.

These medical devices are single use and supplied sterile by EO.

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# List of devices and predicate K reference numbers:

| DIAMETER | LENGTH | TIP      | COATING | SUNNY CATALOG #   | BARD K # |
|----------|--------|----------|---------|-------------------|----------|
| 0.035    | 45     | 3 mm J   | PTFE    | SM-GW-3J35045P-TP | K082094  |
| 0.035    | 50     | 1.5 mm J | PTFE    | SM-GW-1J35050P-TP | K082094  |
| 0.025    | 80     | Straight | PTFE    | SM-GW-3S25080P-TP | K082094  |
| 0.032    | 80     | Straight | PTFE    | SM-GW-3S32080P-TP | K082094  |
| 0.035    | 80     | Straight | PTFE    | SM-GW-3S35080P-TP | K082094  |
| 0.035    | 80     | 3 mm J   | PTFE    | SM-GW-3J35080P-TP | K082094  |
| 0.038    | 80     | Straight | PTFE    | SM-GW-3S38080P-TP | K082094  |
| 0.025    | 100    | Straight | PTFE    | SM-GW-3S25100P-TP | K082094  |
| 0.025    | 100    | 3 mm J   | PTFE    | SM-GW-3J25100P-TP | K082094  |
| 0.035    | 100    | Straight | PTFE    | SM-GW-3S35100P-TP | K082094  |
| 0.035    | 100    | 3 mm J   | PTFE    | SM-GW-3J35100P-TP | K082094  |
| 0.038    | 100    | Straight | PTFE    | SM-GW-3S38100P-TP | K082094  |
| 0.038    | 100    | 3 mm J   | PTFE    | SM-GW-3J38100P-TP | K082094  |
| 0.025    | 120    | Straight | PTFE    | SM-GW-3S25120P-TP | K082094  |
| 0.025    | 120    | 3mm J    | PTFE    | SM-GW-3J25120P-TP | K082094  |
| 0.032    | 120    | Straight | PTFE    | SM-GW-3S32120P-TP | K082094  |
| 0.032    | 120    | 3 mm J   | PTFE    | SM-GW-3J32120P-TP | K082094  |
| 0.035    | 120    | Straight | PTFE    | SM-GW-3S35120P-TP | K082094  |
| 0.035    | 120    | 1.5 mm J | PTFE    | SM-GW-1J35120P-TP | K082094  |
| 0.035    | 120    | 3 mm J   | PTFE    | SM-GW-3J35120P-TP | K082094  |
| 0.035    | 120    | 6 mm J   | PTFE    | SM-GW-6J35120P-TP | K082094  |
| 0.038    | 120    | Straight | PTFE    | SM-GW-3S38120P-TP | K082094  |
| 0.038    | 120    | 3 mm J   | PTFE    | SM-GW-3J38120P-TP | K082094  |
| 0.045    | 120    | Straight | PTFE    | SM-GW-3S45120P-TP | K082094  |
| 0.018    | 145    | Straight | PTFE    | SM-GW-3S18145P-TP | K082094  |
| 0.024    | 145    | 3 mm J   | PTFE    | SM-GW-3J24145P-TP | K082094  |
| 0.025    | 145    | Straight | PTFE    | SM-GW-3S25145P-TP | K082094  |
| 0.025    | 145    | 1.5 mm J | PTFE    | SM-GW-1J25145P-TP | K082094  |
| 0.028    | 145    | Straight | PTFE    | SM-GW-3S28145P-TP | K082094  |
| 0.028    | 145    | 1.5 mm J | PTFE    | SM-GW-1J28145P-TP | K082094  |
| 0.028    | 145    | 3 mm J   | PTFE    | SM-GW-3J28145P-TP | K082094  |
| 0.032    | 145    | Straight | PTFE    | SM-GW-3S32145P-TP | K082094  |
| 0.032    | 145    | 1.5 mm J | PTFE    | SM-GW-1J32145P-TP | K082094  |
| 0.032    | 145    | 3 mm J   | PTFE    | SM-GW-3J32145P-TP | K082094  |
| 0.035    | 145    | Straight | PTFE    | SM-GW-3S35145P-TP | K082094  |
| 0.035    | 145    | 1.5 mm J | PTFE    | SM-GW-1J35145P-TP | K082094  |
| 0.035    | 145    | 3 mm J   | Heparin | SM-GW-3J35145E-TP | K082094  |
| 0.035    | 145    | 3 mm J   | PTFE    | SM-GW-3J35145P-TP | K082094  |
| 0.035    | 145    | 6 mm J   | PTFE    | SM-GW-6J35145P-TP | K082094  |
| 0.038    | 145    | Straight | PTFE    | SM-GW-3S38145P-TP | K082094  |
| 0.038    | 145    | 3 mm J   | Heparin | SM-GW-3J38145E-TP | K082094  |

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|          |               |          |               |                   | F- 7 01   |
|----------|---------------|----------|---------------|-------------------|-----------|
| DIAMETER | LENGTH        | TIP      | COATING       | SUNNY CATALOG #   | BARD K #  |
| 0.038    | 145           | 3 mm J   | PTFE          | SM-GW-3J38145P-TP | K082094   |
| 0.038    | 145           | 6 mm J   | PTFE          | SM-GW-6J38145P-TP | K082094   |
| 0.045    | 145           | Straight | PTFE          | SM-GW-3S45145P-TP | K082094   |
| 0.065    | 145           | Straight | PTFE          | SM-GW-3S65145P-TP | K082094   |
| 0.038    | 150           | Straight | PTFE          | SM-GW-3S38150P-TP | K082094   |
| 0.038    | 150           | 3 mm J   | PTFE          | SM-GW-3J38150P-TP | K082094   |
| 0.035    | 175           | 3 mm J   | PTFE          | SM-GW-3J35175P-TP | K082094   |
| 0.025    | 200           | 1.5 mm J | PTFE          | SM-GW-1J25200P-TP | K082094   |
| 0.032    | 200           | Straight | PTFE          | SM-GW-3S32200P-TP | K082094   |
| 0.032    | 200           | 1.5 mm J | PTFE          | SM-GW-1J32200P-TP | K082094   |
| 0.035    | 200           | Straight | PTFE          | SM-GW-3S35200P-TP | K082094   |
| 0.035    | 200           | 1.5 mm J | PTFE          | SM-GW-1J35200P-TP | K082094   |
| 0.035    | 200           | 3 mm J   | PTFE          | SM-GW-3J35200P-TP | K082094   |
| 0.038    | 200           | Straight | PTFE          | SM-GW-3S38200P-TP | K082094   |
| 0.025    | 220           | Straight | PTFE          | SM-GW-3S25220P-TP | K082094   |
| 0.035    | 220           | Straight | PTFE          | SM-GW-3S35220P-TP | K082094   |
| 0.035    | 220           | 3 mm J   | PTFE          | SM-GW-3J35220P-TP | K082094   |
| 0.038    | 220           | Straight | PTFE          | SM-GW-3S38220P-TP | K082094   |
| 0.035    | 260           | Straight | PTFE          | SM-GW-3S35260P-TP | K082094   |
| 0.035    | 260           | 3 mm J   | PTFE          | SM-GW-3J35260P-TP | K082094   |
| 0.038    | 260           | Straight | PTFE          | SM-GW-3S38260P-TP | K082094   |
| 0.035    | 300           | Straight | PTFE          | SM-GW-3S35300P-TP | K082094   |
| 0.035    | 400           | Straight | PTFE          | SM-GW-3S35400P-TP | K082094   |
| 0.025    | 145           | Straight | Hydrophilic   | SM-GW-3S25145H-TP | K993000   |
| 0.035    | 145           | Straight | Hydrophilic   | SM-GW-3S35145H-TP | K993000   |
| 0.038    | 145           | Straight | Hydrophilic   | SM-GW-3S38145H-TP | K993000   |
| 0.032    | 40            | Straight | 302 Stainless | SM-GW-3S32040N-TP | Pre-      |
|          |               |          | Steel         |                   | amendment |
| 0.025    | 45            | 3 mm J   | 302 Stainless | SM-GW-3J25045N-TP | Pre-      |
|          |               |          | Steel         |                   | amendment |
| 0.035    | 45            | Straight | 302 Stainless | SM-GW-3S35045N-TP | Pre-      |
|          |               |          | Steel         |                   | amendment |
| 0.035    | 45            | 3 mm J   | 302 Stainless | SM-GW-3J35045N-TP | Pre-      |
|          |               |          | Steel         |                   | amendment |
| 0.038    | 45            | Straight | 302 Stainless | SM-GW-3S38045N-TP | Pre-      |
|          |               | 0.000000 | Steel         |                   | amendment |
| 0.038    | 50            | 3 mm J   | 302 Stainless | SM-GW-3J38050N-TP | Pre-      |
|          |               | •        | Steel         |                   | amendment |
| 0.032    | 80            | Straight | 302 Stainless | SM-GW-3S32080N-TP | Pre-      |
|          | <del></del> . |          | Steel ·       |                   | amendment |
| 0.035    | 80            | 3 mm J   | 302 Stainless | SM-GW-3J35080N-TP | Pre-      |
|          |               |          | Steel         |                   | amendment |
| 0.035    | 100           | Straight | 302 Stainless | SM-GW-3S35100N-TP | Pre-      |
|          |               |          | Steel         |                   | amendment |

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|          |          |          |               |                   | •         |
|----------|----------|----------|---------------|-------------------|-----------|
| DIAMETER | LENGTH   | TIP      | COATING       | SUNNY CATALOG #   | BARD K #  |
| 0.035    | 100      | 3 mm J   | 302 Stainless | SM-GW-3J35100N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.038    | 100      | Straight | 302 Stainless | SM-GW-3S38100N-TP | Pre-      |
|          |          | 1        | Steel         |                   | amendment |
| 0.038    | 100      | 3 mm J   | 302 Stainless | SM-GW-3J38100N-TP | Pre-      |
|          | ļ        | <u> </u> | Steel         |                   | amendment |
| 0.045    | 100      | Straight | 302 Stainless | SM-GW-3S45100N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.035    | 120      | Straight | 302 Stainless | SM-GW-3S35120N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.035    | 120      | 3 mm J   | 302 Stainless | SM-GW-3J35120N-TP | Pre-      |
|          |          | <u></u>  | Steel         |                   | amendment |
| 0.038    | 120      | Straight | 302 Stainless | SM-GW-3S38120N-TP | Pre-      |
|          |          | _        | Steel         |                   | amendment |
| 0.038    | 120      | 3 mm J   | 302 Stainless | SM-GW-3J38120N-TP | Pre-      |
|          | <u> </u> |          | Steel         |                   | amendment |
| 0.045    | 120      | Straight | 302 Stainless | SM-GW-3S45120N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.035    | 145      | Straight | 302 Stainless | SM-GW-3S35145N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.035    | 145      | 3 mm J   | 302 Stainless | SM-GW-3J35145N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.038    | 145      | Straight | 302 Stainless | SM-GW-3S38145N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.038    | 145      | 3 mm J   | 302 Stainless | SM-GW-3J38145N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.035    | 250      | Straight | 302 Stainless | SM-GW-3S35250N-TP | Pre-      |
|          | İ        |          | Steel         |                   | amendment |
| 0.038    | 260      | Straight | 302 Stainless | SM-GW-3S38260N-TP | Pre-      |
|          |          | _        | Steel         |                   | amendment |
| 0.038    | 300      | Straight | 302 Stainless | SM-GW-3S38300N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
| 0.035    | 400      | Straight | 302 Stainless | SM-GW-3S35400N-TP | Pre-      |
|          |          |          | Steel         |                   | amendment |
|          |          | •        | _             |                   | •         |

#### Package:

Material No.1: DuPont Tyvek package for medical use. Material No.2: Multiple-layer compound film made from of PE and PA.

#### Indications:

Sunmed Guidewires are used for the introduction and placement of diagnostic or interventional devices in the coronary and peripheral vasculature and may be used to reach and cross a target lesion.

# K120119

#### **Performance Testing:**

The following tests were performed on the Sunmed Guide Wires:

Degradation Test on Disposable Guide Wire

Physical Performance

Appearance

Radiodetectability

Eroding resistance

Breakage resistance

Deformation resistance

Connection strength

Package Performance

Sterility

ETO Residue

**ECH Residue** 

### **Technological Characteristics:**

Summary of the technological characteristics of our device compared to the predicate device:

The predicates were compared in the following areas and found to have identical technological characteristics and to be equivalent because they are the identical products.

Indications for Use

Target Population

Design

Technique

Sterility

Biocompatibility

**Anatomical Sites** 



Food and Drug Administration 10903 New Hampshire Avenue Document Control Room --WO66-G609 Silver Spring, MD 20993-0002

MAY 1 1 2012

Sunny Medical Device (Shenzhen) Co., Ltd. c/o Mr. Greg Holland Regulatory Specialists, Inc. 3722 Ave. Sausalito Irvine, CA 92606

Re: K129

K120119

Sunmed Guide Wire

Regulation Number: 21 CFR 870.1330 Regulation Name: Catheter Guide Wire

Regulatory Class: Class II Product Code: DQX Dated: April 20, 2012 Received: May 10, 2012

Dear Mr. Holland:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

#### Page 2 – Mr. Greg Holland

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <a href="http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm">http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm</a> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <a href="http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm">http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm</a>.

Sincerely yours,

& Bram D. Zuckerman, M.D.

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Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

#### 4. Indications for Use Statement

#### **Indications for Use**

510(k) Number (if known): K120119

Device Name: Sunmed Guide Wires

Indications for Use:

Sunmed Guidewires are used for the introduction and placement of diagnostic or interventional devices in the coronary and peripheral vasculature and may be used to reach and cross a target lesion.

Prescription Use <u>X</u>
(Part 21 CFR 801 Subpart D)

AND/OR Over-The-Counter Use \_\_\_\_\_\_(21 CFR 801 Subpart C)

PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Cardiovascular Devices

510(k) Number K /20119

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